Geothermal utopia gaining steam in Utah

Experts weigh use of subterranean steam to generate power, heating

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CEDAR CITY - Gary L. Benson envisions a steam-powered utopia.

Benson is a consultant for the development group NovaTech, which aims to build a self-sufficient community in Provo's Ironton, a former industrial area, by tapping steam to provide electricity and heat for homes and businesses. There are even plans for erecting greenhouses to grow food.

He attended a two-day workshop on geothermal energy last week at Southern Utah University in Cedar City. The workshop brought together experts on the potential use of subterranean steam as a renewable-energy source.

"I am on a learning curve so I can know enough about geothermal to make reliable projections concerning the use of steam," Benson said. "There have been a lot of utopian communities before, both religious and secular, but none completely economically independent like we plan."

Those at the workshop learned where steam resources are, how they can be captured for various uses - from power generation to heating - and the importance of snagging state-sponsored incentives to encourage development.

Utah's western desert has vast potential, but the steam is expensive to locate and develop.

The SUU event featured a visit to a steam-powered nursery in Iron County, an exploratory drilling operation in Beaver County and PacifiCorp's Blundell plant, north of Milford.

Started in the 1970s, the Blundell facility draws steam from the Roosevelt thermal reservoir to produce about 35 megawatts of electricity a year.

The company, which has owned the plant for two years, operates two generating units and has just finished a third, which could double the generating capacity.

Once the steam is pumped out of the ground to power turbines, it is reinjected to the reservoir, where it can be heated to about 500 degrees and used again, said plant manager Garth Larsen.

Robert Blackett, a geologist with the Utah Geological Survey, sees great potential for developing steam reservoirs in the the Great Basin. "The biggest reasons it has not been developed are the upfront expense and risk of not finding what is hoped for."

But that may be changing.

"I'm getting a lot more calls of people interested in it," Blackett said.

Sam Liu, an engineer and analyst with the state's Division of Public Utilities, cites some advantages of steam - especially when compared with solar and wind.

"The sun doesn't always shine and the wind doesn't always blow."

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